

10/511308

DT04 Rec'd PCT/PTO 15 OCT 2004

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A signal discriminator which is formed of a soft magnetic material to form a closed magnetic path, is attached on a cable such that the cable passes through the closed magnetic path, and which passes an electric signal flowing through the cable and blocks a noise signal flowing through the cable,
characterized in that the soft magnetic material has its complex relative permittivity varying with frequency, and a real part of the complex relative permittivity is large in a frequency domain lower than a frequency of the electric signal flowing through the cable and small in a frequency domain higher than the frequency of the electric signal.
2. (Original) A signal discriminator according to Claim 1, wherein the real part of the complex relative permittivity of the soft magnetic material ranges from 1,000 up to 20,000 at 1 kHz, and from 50 downward at 1 MHz.
3. (Currently Amended) A signal discriminator according to ~~Claim 1 or 2~~, Claim 1, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition comprising 44.0 to 50.0 (50.0 excluded) mol % Fe₂O₃, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO₂ and SnO₂, and the rest consisting of MnO.
4. (Currently Amended) A signal discriminator according to ~~Claim 1 or 2~~, Claim 1, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition

comprising 44.0 to 50.0 (50.0 excluded) mol % Fe₂O₃, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO₂ and SnO₂, 0.1 to 16.0 mol % CuO, and the rest consisting of MnO.

5. (Currently Amended) A signal discriminator according to ~~any one of Claims 1 to 4~~, Claim 1, wherein the soft magnetic material has a resistivity of 150 Ωm or higher.

6. (New) A signal discriminator according to Claim 2, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition comprising 44.0 to 50.0 (50.0 excluded) mol % Fe₂O₃, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO₂ and SnO₂, and the rest consisting of MnO.

7. (New) A signal discriminator according to Claim 2, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition comprising 44.0 to 50.0 (50.0 excluded) mol % Fe₂O₃, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO₂ and SnO₂, 0.1 to 16.0 mol % CuO, and the rest consisting of MnO.

8. (New) A signal discriminator according to Claim 2, wherein the soft magnetic material has a resistivity of 150 Ωm or higher.

9. (New) A signal discriminator according to Claim 3, wherein the soft magnetic material has a resistivity of 150 Ωm or higher.

10. (New) A signal discriminator according to Claim 4, wherein the soft magnetic material has a resistivity of 150 Ωm or higher.